DDES
King County
Department of Development
and Environmental Services
900 Oakesdale Avenue Southwest
Renton, WA 98055-1219

September 4, 2001

Communications
Bonneville Power Administration – KC-7
P.O. Box 12999
Portland, OR 97212

Re: Kangley – Echo Lake Transmission Line Project
KEC – 4

Dear Sir/Madam:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the proposed Kangley-Echo Lake Transmission Line Project. The comments that are enclosed focus on whether this proposed project is consistent with King County's Comprehensive Land Use Policies and zoning and related regulations affecting development within environmentally sensitive areas.

King County has developed its Comprehensive Plan land use policies pursuant to Article 11, Section 11 of the Washington State Constitution and the Washington State Growth Management Act (GMA), R.C.W. 36.70A. The King County Comprehensive Plan is the principle planning document used by King County for the orderly physical development of the county. Policies set forth in the County's Comprehensive Plan are implemented through County land use regulations including, but not limited to, the King County Zoning Code, KCC Title 21A (including limitations upon development within environmentally sensitive areas); Surface Water Management Code, KCC Title 9 (including provisions for the protection of surface and groundwater); Building and Construction Standards Code, KCC Title 16 (including general clearing and grading standards) and Shoreline Management Code, KCC Title 25 (including restrictions upon development within designated shorelines). Each of these land use regulations was likewise adopted pursuant to authority of Article 11, Section of the Washington State Constitution and the Washington State Growth Management Act.

The proposed transmission corridor crosses two general zone classifications within unincorporated King County. These are the Forest and Rural Residential Zones. Utility facilities are permitted uses within these zone classifications but only to the extent that

these facilities comply with all applicable provisions of the zoning code, including the development standards for environmentally sensitive areas. The DEIS does not evaluate whether this project complies with these regulations but concludes on page 5-15 that by complying with the Endangered Species Act, Section 404 of the Clean Water Act, Coastal Zone Management Act, et. al., the project will comply with the substantive intent of these regulations. As noted in Section 5.11.2 of the DEIS, BPA will be providing information to the Department of Development and Environmental Services for later review to determine consistency with the County' s Shoreline Master Program. This review covers a very small portion of the project route and there is no similar evaluation of how these other federal statutes meet or exceed the other applicable local regulations. In addition, the DEIS does not include the level of detailed technical analyses or design detail to determine this project's compliance with applicable King County Policies or adopted zoning or development regulations. For these reasons and others that are discussed in more detail in the attached comments, we do not agree with the DEIS conclusion relative to whether the proposed Kanasket-Echo Lake Transmission Project complies with applicable County policies or codes.

Thank you again for the opportunity to comment.

Sincerely,

Randy M. Sandin, Supervisor
Site Development Services Section

Wetlands, Streams, Wildlife, and Shorelines

1.0 Wetlands/Streams and Rivers

1.1 Wetlands

According to the DEIS, a total 10 wetlands, totaling 242 acre, were identified within the 500-ft transmission line study corridor under the proposed alternative. Most wetlands were low-gradient, depressional forested wetlands. Major streams and rivers associated with wetlands within the ROWS include the Raging River, Rock Creek, and Cedar River. According to the Draft Environmental Impact Statement (DEIS), establishment of the cleared ROW would impact a total of 16 acres of wetland (please note that the wetland Appendix identified 25 acres of impact, under the proposed alternative-please clarify). The majority of wetlands that may be effected are associated with forested habitats that would be permanently altered, by the removal of trees, with construction of the transmission line. Impacts would include clearing shrubs, trees, and herbaceous vegetation from wetlands and wetland buffers. Direct and indirect impacts that could occur within or outside of the cleared ROW include, vegetation alteration, water quality degradation, sedimentation, introduction of invasive species, wildlife impacts, and changes in wetland hydrology. Permanent impacts on wetlands, buffers, and their functions and values may occur from fill associated with road access or widening for tower construction. New access roads would be sited to avoid wetland impacts where possible, however, road construction and use could carry sediment into wetlands, affecting water quality and biological productivity. Expansion of the substation is expected to impact less than 1/10 acre of wetland. Operation and maintenance of the ROW (vegetation removal) would include periodic impacts on wetlands and their buffers.

The following Comprehensive Plan policies apply to the siting of facilities in and around wetlands:

Wetlands are valuable natural resources in King County. They include shallow or deep marshes, bogs, ponds, wet meadows, forested and scrub-shrub communities and other lands supporting a prevalence of vegetation adapted to saturated soils. Many of the larger wetlands in King County are mapped in the County's Sensitive Areas Map Folio, and their vegetation, hydrology and wildlife are briefly described in the King County Wetlands Inventory.

E- 130 King County shall use as minimum standards, the Washington State Wetlands Identification and Delineation Manual, 1997 or its successor which is adopted by the King County Council and is the scientifically accepted replacement methodology based on better technical criteria and field indicators.

Wetlands are productive biological systems, providing habitat for fish and wildlife. They may serve as outdoor classrooms for scientific study. Some are used for hiking, hunting,

and fishing. Wetlands also store flood waters and control runoff, thereby reducing flooding, downstream erosion and other damage. Further, wetlands protect water quality by trapping sediments and absorbing pollutants. They discharge ground water, making it available to plants and animals. Wetlands store peak flows and discharge to streams in dry periods, thus enabling fish and other riparian animal populations to survive. These wetland functions need consideration from a watershed perspective.

E- 132 King County's overall goal for the protection of wetlands is no net loss of wetland functions within each drainage basin. Acquisition, enhancement, regulations, and incentive programs shall be used independently or in combination with one another to protect and enhance wetland functions.

E- 133 Development adjacent to wetlands shall be sited such that wetland functions are protected, an adequate buffer around the wetlands is provided, and significant adverse impacts to wetlands are prevented.

The functions and values of a wetland will change as land use surrounding the wetland changes. Fragmentation of habitat is considered the greatest threat to native biodiversity. Protecting native species biodiversity depends upon maintaining biological linkages and preventing fragmentation of wetland habitats. Small wetlands strategically located between other wetlands may provide important biological links between other, higher quality wetlands. Wetlands adjacent to habitat networks also are especially critical to wildlife functions and should receive special consideration in planning land use.

E- 134 Areas of native vegetation that connect wetland systems should be protected. Whenever effective, incentive programs such as buffer averaging, density credit transfers, or appropriate non-regulatory mechanisms shall be used.

E- 135 The unique hydrologic cycles, soil and water chemistries, and vegetation communities of bogs and fens shall be protected through the use of incentives, acquisition, Best Management Practices, and implementation of the King County Surface Water Design Manual to control and/or treat stormwater within the wetland watershed.

E- 138 Enhancement or restoration of degraded wetlands may be allowed to maintain or improve wetland functions provided that all wetland functions are evaluated in a wetland management plan, and adequate monitoring, code enforcement and evaluation is provided and assured by responsible parties. Restoration or enhancement must result in a net improvement to the functions of the wetland system. Technical assistance to small property owners should be considered.

E- 139 Alterations to wetlands may be allowed to:

- **a. Accomplish a public agency or utility development;**
- **b. Provide necessary utility, stormwater tightline and road crossings; or**
- **c. Avoid a denial of all reasonable use of the property, provided all wetland functions are evaluated, the least harmful and reasonable alternatives are pursued, affected significant functions are appropriately mitigated, and mitigation sites are provided with monitoring.**

When adverse impacts cannot be avoided, compensatory mitigation may be allowed. This means the replacement of project-induced losses of wetland functions and values will be permitted through wetland creation, restoration or enhancement.

E- 141 Mitigation sites should replace or augment the functions to be lost as a result of the project proposal. Wetland mitigation proposals should be approved if they would result in improved overall wetland functions within a drainage basin. All wetland functions should be considered. Mitigation sites should be located strategically to alleviate habitat fragmentation, and avoid impacts to and prevent loss of farmable land within Agricultural Production Districts.

E- 142 Mitigation projects should contribute to an existing wetland system or restore an area that was historically a wetland. The goal for these mitigation projects is no net loss of wetland functions per drainage basin.

E- 143 Land used for wetland mitigation should be preserved in perpetuity. Monitoring and maintenance in conformance with King County standards should be provided by the project proponent until the success of the site is established.

The foregoing Comprehensive Plan provisions for evaluating proposed uses within wetlands are implemented by pertinent zoning code provisions paraphrased below. King County zoning guidelines prohibit development from occurring within wetland except where these minimum requirements area satisfied.

KCC 21A.24.320-Wetland Development standards defined.

KCC 21A.24.330- (B), (E), and (N)

(B) –Special study required (see KCC 21A.24.100, 110, and 120)

(E)- Utilities may be allowed in wetland buffers if no practical alternative location is available and the utility corridor meets any additional requirements set forth in administrative rules.

(N)-Wetland road crossings

KCC 21A.24.130 Mitigation required: mitigation, maintenance, monitoring, and contingency.

KCC 21A.06.750 Mitigation defined. In descending order of preference, avoidance, minimization, rectification, reduction or elimination over time, compensation by replacing, enhancement, etc., and monitoring.

KCC 21A.24.340 (C) Replacement is required when a wetland or buffer is altered. Restoration of wetland shall be met by replacement.

KCC 21A.24.340 (D) Enhancement may be allowed, but the wetland biologic and or hydrologic functions shall be improved.

KCC 21A.24.340(F)- Off site mitigation allowed if within the same sub-basin, and greater hydrologic and biologic functions are achieved.

KCC 21A.24.070- Exceptions to the wetlands standards are allowed if no practical alternative exists with less impact on the sensitive area and the proposal minimizes impacts on sensitive areas.

1.2 Streams/Rivers

The DEIS sated that the preferred transmission line alternative would cross nine fish-bearing streams and an unknown number of non-fish-bearing streams. Impacts on stream resources from the proposed action would include the clearing of 12 acres within 100 feet of potentially fish-bearing streams and 33 acres within 300 feet of potentially fish bearing streams. Approximately 2,900 feet of stream would be within the cleared ROW. Clearing within 100 feet of the stream could reduce riparian shading and bank reinforcement by roots, and increase fine litter contributions to the stream. Clearing within 300 feet of the steam could affect LWD recruitment to the stream and stream microclimate. It is also possible that during construction, surface water runoff containing sediment, fuel spills, herbicide runoff and other contaminants could impact streams.

During the construction of the transmission line, the DEIS identifies that the BPA may need to install some culverts to provide or upgrade stream crossings for access roads. Improper culvert installation may impact stream hydrology, increase sediment delivery to streams, increase peak flows, and/or create a fish passage barrier. Road construction and road use could cause sediment delivery to streams.

Although specific locations have not been determined yet, it is stated that the BPA would need to blast bedrock to install some tower footings. Detonating explosives in or adjacent to fish habitat could cause disturbance, injury, or death to fish and destruction or alteration of their habitat.

Operation and maintenance activities in of the ROW (vegetation removal) would include periodic impacts on streams and riparian areas. It is stated that the BPA has prepared a programmatic EIS for its vegetation management program associated with transmission lines, roads, and related facilities.

Comprehensive Plan policies apply to the siting of facilities in and around streams are identified below and in the Comprehensive Plan policies identified Under Fish and Wildlife and Shoreline sections in this letter.

Our use and modification of water resources and the surrounding terrestrial environment affects how the hydrologic cycle functions and can cause unintended detrimental impacts such as flooding, erosion, degradation of water quality, loss of fish and wildlife habitat,

and loss of archeological and traditional cultural resources that depend upon but do not damage natural resources. In order to minimize adverse impacts on the water resources of King County and ensure our continued ability to receive the benefits they provide we need to promote responsible land and water resource planning and use.

E- 116 King County shall use incentives, regulations and programs to manage its water resources (Puget Sound, rivers, streams, lakes, freshwater and marine wetlands and ground water) and to protect and enhance their multiple beneficial uses-including fish and wildlife habitat, flood and erosion control, water quality control and sediment transport, water supply, energy production, transportation, recreational opportunities and scenic beauty. Use of water resources for one purpose should, to the fullest extent practicable, preserve opportunities for other uses.

E- 117 Development shall support continued ecological and hydrologic functioning of water resources and should not have a significant adverse impact on water quality or water quantity, or sediment transport and should maintain base flows, natural water level fluctuations, ground water recharge in Critical Aquifer Recharge Areas and fish and wildlife habitat.

E- 126 Stormwater runoff shall be managed through a variety of methods, with the goal of limiting impacts to aquatic resources, protecting and enhancing the viability of agricultural lands and promoting groundwater recharge. Methods of stormwater management shall include temporary erosion and sediment control, flow control facilities, water quality facilities as required by the Surface Water Design Manual, and Best Management Practices as described in the Stormwater Pollution Control Manual. Runoff caused by development shall be managed to prevent adverse impacts to water resources and farmable lands. Regulations shall be developed for lands outside of the Urban Areas that favor non-structural stormwater control measures when feasible including: vegetation retention and management; seasonal clearing limits; limits on impervious surface; and limits on soil disturbance.

E- 128 River and stream channels, stream outlets, headwater areas, and riparian corridors should be preserved, protected and enhanced for their hydraulic, hydrologic, ecological and aesthetic functions, including their functions in providing woody debris sources to salmonid-bearing streams.

The foregoing King County Comprehensive Plan stream policies are implemented by the zoning code provisions paraphrased below. King county zoning precludes development from occurring within rivers, streams and associated buffers unless these minimum requirements area satisfied.

KCC 21A.24.360-Zoning Code (SAO) Development Standards for Streams.

KCC 2A.24.370: (A), (D), (G), and (J)

(A)- Special study required (see KCC 21A.24.100; 110; and 120.

(D)- Utilities allowed in stream buffers if no practical alternatives exist and provisions of KCC 21A.24.220 are met.

(G)- Stream crossings

(J) Stream channels may be stabilized if stream movement threatens an existing structure, does not impact the floodplain, and consistent with the Guidelines for Stream Bank Stabilization.

KCC 21A.24.130- Mitigation required.

KCC 21A.06.750-Mitigation defined.

KCC 21A.24.380(D) Replacement or enhancement is required when a stream or buffer is altered. Replacement or enhancement shall result in no net loss of stream functions and result in no impact to streams.

KCC 21A.24.380 (F)- Mitigation shall be on site and in-kind unless on site mitigation is not possible, mitigation occurs within the same sub-basin and greater biologic and hydrologic functions are achieved.

KCC 21A.24.070- Exceptions to the stream standards are allowed if no practical alternative exists with less impact on the sensitive area and the proposal minimizes impacts on sensitive areas.

1.3 Proposed projects consistency with King County's land use land use plans and zoning regulations for wetlands and streams/rivers

Upon review of the DEIS, King County has determined that the proposed project is not consistent with King County's land use plans and zoning regulations affecting streams and wetlands. Provisions are available in King County's zoning regulations to deviate from certain of its sensitive area development standards if an applicant can demonstrate that through an alternative evaluation there are no practical project alternatives or locations (21A-24-005 D.) to the proposal that would minimize and mitigate impacts on sensitive areas (Public Rules 21A-24-025). There are practical alternatives and mitigation that have not been evaluated in the DEIS that are available and that may preclude use of such and exemption or which would further reduce project impacts to sensitive areas to the point that an exemption could be granted.
The alternative analysis in the DEIS does not demonstrate that there are no practical alternatives to the proposal that would minimize impacts on sensitive areas. The development of alternative appears to be primarily driven by cost, residence and subdivision avoidance, and WSCC reliability criteria. An alternatives evaluation will need to be performed that demonstrates avoidance, or where avoidance is not feasible, minimization of impacts to stream and wetland resources.

Section 4.9.2.4 of the DDES identifies standard mitigation measures to minimize wetland impacts and Section 4.5.21 and Section 4.6.2.11 of the DDES identifies standard mitigation measures to minimize impacts on streams and associated fish resources.

Although these mitigation measures do identify measure to minimize impacts on stream and wetland resources, they are not comprehensive and do not identify specific steps that will be taken to avoid, reduce, or mitigate impacts on sensitive areas. Per King County zoning codes KCC 21A.06.750 and the Public Rules 21A-24.031, the proposed project must demonstrate all impacts on streams and associated buffers are avoided or reduced through mitigation. The following mitigation actions are listed in descending order of preference: 1) avoiding the impact by not taking a certain action, 2) minimizing the impact by limiting the degree or magnitude of the action by using appropriate technology or by taking affirmative steps to avoid or reduce the impact, 3) rectifying the impact by repairing, rehabilitating or restoring the affected sensitive area or buffer, 4) reducing or eliminating the impact over time by preservation or maintenance operations during the life of the development proposal, 5) compensating for the impact by replacing, enhancing or providing substitute sensitive areas and environments, and 6) monitoring the impact and taking appropriate corrective measures. Mitigation should include site specific analysis of each sensitive area that would be affected by the proposed project. Specific project siting alternatives should then be developed to avoid or minimize impacts on sensitive areas (specifically, avoiding all impacts on Class 1 and 2 wetlands and streams). This should include identifying all sensitive areas where impacts could be avoided or reduced through alternative siting methods such as using existing topography to span sensitive areas that would alleviate the need to remove existing vegetation. The analysis should also include identifying locations along the proposed ROW where the proposed utility corridor or roads and other associated facilities could be shifted to avoid impacting sensitive areas. A sensitive area clearing plan should also be prepared as part of the design of the project to minimize vegetation impacts on wetlands, streams, and associated buffers. The plan should identify and evaluate specific sensitive areas that could not be avoided through the siting alternatives evaluation, and determine the permissible height of existing vegetation that could remain at these locations.

As stated above, enhancement, restoration, or creation will be required for all unavoidable wetland, stream, and buffer impacts. The DDIS did not identify sufficient mitigation measure to rectify sensitive area impacts by repairing, rehabilitating or restoring the affected sensitive areas. The mitigation should include compensating for the impacts by creating substitute sensitive areas or enhancing sensitive areas. This will include mitigation for all temporary construction-related sensitive area, and permanent sensitive area impacts, such as modifying forested wetlands to other vegetation types, will require replacement of the functions of those sensitive areas through enhancement, restoration, or creation of altered sensitive area resources. Monitoring must also be competed and remedial actions should be identified to assure enhancement, restoration, or creation mitigation measures are successful. Mitigation sites should be on land that is owned either by the BPA, King County, or other ownership acceptable to King County, and shall be permanently protected from future development or alteration.

The following bulleted items identify additional wetland and stream zoning code non-consistency issues that should be addressed within the final EIS.

Wetlands

- All wetland sites within or outside of the proposed ROW that may be impacted by project activities would need to be delineated using methodology outlined Ecology's State of Washington Wetland Identification and Delineation Manual (1997).

- All wetlands would need to be classified per 21A.06.1415 (A-C).

- Per the KCC 21A.24.320, all class 1 wetlands shall have a 100-foot buffer, Class 2 wetlands shall have 50-foot buffers, and Class 3 shall have 25-foot buffers. Buildings and other structures shall be setback 15-feet from the wetland buffer (21A.24.200).

- Sensitive area buffers are mandated for the purpose of protecting wetlands. Buffers of native vegetation help wetlands to maintain both hydrological and biological functions and values. These include storm water conveyance and food chain support, as well as flood prevention and salmon production. In order for buffers to perform these duties they must remain in an undisturbed condition as a "setback area" in which native plants are allowed to grow: non-native species are not allowed to be introduced into this area (KCC21A.24.330).

- Utilities and/or removal of vegetation for a proposed utility corridor may be allowed within established wetland buffers only if the development would protect, restore or enhance the wildlife habitat, natural drainage or other valuable functions of the wetland resulting in a net improvement to the functions of the wetland system (21A.24.330 E).

- The filling of non-isolated wetlands for construction of structures is not permitted under King County code. Alteration of isolated wetlands (21A.06.1410) may be permitted under some circumstances (21A.24.330 K).

- Alteration to wetlands and wetland buffers from road crossings must be mitigated (21A.24.330 (A.2) and N). Additionally, crossings must not change the overall wetland hydrology, must minimize wetland impacts, and must be constructed during summer low water periods. Alterations of wetlands shall be replaced or enhanced on the site or within the same drainage basin using the following formulas: Class 1 and 2 wetlands on a 2:1 basis and class 3 wetlands on a 1:1 basis with equivalent or greater biologic functions including, but not limited to, habitat functions and with equivalent hydrologic functions including, but not limited to, storage capacity (21A.24.340 C., D., and E). Replacement or enhancement off the

site may be allowed if the applicant demonstrates that the off-site location is in the same drainage sub-basin as the original wetland and that greater biologic and hydrologic functions will be achieved.

- The use of herbicides in wetlands and buffers will not permitted (KCC 21A.24.320 D).

Streams

- Site specific analysis of all proposed streams to be crossed would need to be performed to identify and evaluate streams for the presence of fish (KCC 21A.24.100; 110; and 120) and classify the streams. As noted within the DEIS Fisheries Appendix, the DEIS relied upon remote methods to identify potential fish-bearing streams.

- Per the KCC21A.24.360, Class 1 streams and Class 2 stream used by salmonids shall have 100-foot buffers. Non-fish bearing Class 2 streams shall have a 50-foot buffer and Class 3 streams (ephemeral) shall have a 25-foot buffer. Alteration, such as vegetation clearing, is typically not permitted within stream buffers.

- Sensitive area buffers are mandated for the purpose of protecting streams and rivers. Buffers must remain in an undisturbed condition as a "setback area" in which native plants are allowed to grow: non-native species are not allowed to be introduced into this area (KCC21A.24.330).

- Utilities may be allowed in stream buffers if no practical alternative is available and the utility corridor meets any additional requirements set forth in administrative rules including, but not limited to, requirements for installation, replacement of vegetation and maintenance (21A.24.330 E.).

- Crossings of streams and encroachment on the otherwise required stream buffer may be allowed if all crossings use bridges or other construction techniques which do not disturb the stream bed or bank, except that bottomless culverts or other appropriate methods demonstrated to provide fisheries protection may be used for Class 2 or 3 streams if the applicant demonstrates that such methods and their implementation will pose no harm to the stream or inhibit migration of fish (21A.24.370 G). All crossings must be constructed during the summer low flow and be timed to avoid stream disturbance during periods when use is critical to salmonids. Crossings can not occur over salmonid spawning areas unless King County determines that no other possible crossing site exists. Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water mark. Crossings do not diminish the flood-carrying capacity of the stream.

- The use of herbicides in stream buffers will not permitted (KCC 21A.24.360 D).

2.0 Fish and Wildlife

A number of wildlife species, including invertebrates, were identified as potentially occurring within the project area. Species that are federally-listed as threatened or endangered; federal species of concern; and Washington State-listed threatened, endangered, sensitive or monitor species with the potential to occur on the west-side of the Cascade Mountains were selected for the BPAs analysis. Species were sorted by their primary habitat associations, defined as forest communities, aquatic communities, riparian communities, early seral communities, and special or unique habitats.

Two wildlife habitat corridors designated as wildlife Network in the King County Comprehensive Plan occur within the project area. One of the wildlife corridors follows the Cedar River and another traverses the project area to the north of the river. Two wildlife corridors converge west of Rattlesnake Lake. Both corridors would be crossed by the project alternatives.

Impacts on wildlife species associated with the preferred alternative include physical loss of habitat, or disturbance of wildlife from the construction activities or ongoing facility use and maintenance. Temporary construction impacts would be associated with noise and human presence.

The proposed action could potentially impact three federally listed salmon species, the Chinook salmon, bull trout, and Coho salmon. Bull trout and Chinook salmon have not been recorded to use streams in the project area of any of the proposed alternative, however, all stream accessible to anadromous fish in the project area are regarded by the USFWS and NMFS as having potential to support Chinook salmon an bull trout. Chinook salmon have been recorded in the Raging River less than one mile downstream of the Segment D crossing, and their apparent absence in the project area may only be due to inadequate surveying. The Cedar River contains suitable Chinook salmon spawning habitat and such use is expected to occur after the Landsburg Dam fish ladder is completed. Reduced LWD recruitment potential and impacts on stream thermal regime were identified to be the primary issues of concern.

The following Comprehensive Plan policies and those identified under streams/rivers, Wetlands, and the Shoreline section of this letter apply to the siting of facilities in sensitive fish and wildlife species:

It is King County's goal to conserve fish and wildlife resources in the County and to maintain countywide biodiversity. This goal may be achieved through implementation of several broad policy directions that form an integrated vision for the future. Each of the pieces is necessary for the whole to be successful. The policy objectives are to 1) identify

and protect critical fish and wildlife habitat conservation areas, 2) link those critical habitat areas and other protected lands through a network system, and 3) integrate fish and wildlife habitat and conservation goals into new and existing developments. Conservation of biodiversity is necessary if wildlife benefits currently enjoyed by residents of the County are to be enjoyed by future generations.

E- 165 The County shall strive to maintain the existing diversity of species and habitats in the County. The County should maximize wildlife diversity in the Rural Area.

E- 166 Fish and wildlife should be maintained through conservation and enhancement of terrestrial, air, and aquatic habitats.

E- 167 Habitats for species which have been identified as endangered, threatened, or sensitive by the state or federal government shall not be reduced and should be preserved. In the Rural Area and Natural Resource Lands, habitats for candidate species identified by the county, as well as species identified as endangered, threatened, or sensitive by the state or federal government shall not be reduced and should be preserved.

The Growth Management Act requires jurisdictions to designate Fish and Wildlife Habitat Conservation Areas for protection. The Washington Administrative Code (WAC) sets out guidelines that jurisdictions must consider when designating these areas. As set forth in the WAC guidelines, Fish and Wildlife Habitat Conservation Areas include:

a) Areas with which endangered, threatened, and sensitive species have a primary association;
b) Habitats and species of local importance;
c) Commercial and recreational shellfish areas;
d) Kelp and eel grass beds; herring and smelt spawning areas;
e) Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;
f) Waters of the state;
g) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; or
h) State natural area preserves and natural resource conservation areas.

It is important to note that for some species, mere presence is not considered significant. Significant habitats, for some species, are those areas that may be limited during some time of the year or stage of the species life cycle. King County has reviewed these guidelines and has developed policies E-168 through E-172 that address the various species included in the WAC guidelines. These policies recognize the tiered listing of these species and their habitats as defined by the United States Fish and Wildlife Service and the Washington State Department of Fish and Wildlife. These policies also recognize the need to regularly review the information developed on species and habitats and amend the tiered listing as appropriate.

E- 168 King County shall designate and protect, through measures such as regulations,

incentives, capital projects or purchase, the following Fish and Wildlife Habitat Conservation Areas found in King County:

a) **Habitat for federal or state listed Endangered, Threatened or Sensitive species.**
b) **Habitat for Salmonids of Local Importance: kokanee/sockeye/red salmon, chum salmon, coho/silver salmon, pink salmon, coastal resident/searun cutthroat, rainbow trout/steelhead, bull trout, Dolly Varden, and pygmy whitefish, including juvenile feeding and migration corridors in marine waters;**
c) **Habitat for Raptors and Herons of Local Importance: red-tailed hawk, osprey, black-crowned night heron, and great blue heron;**
d) **Commercial and recreational shellfish areas;**
e) **Kelp and eelgrass beds;**
f) **Herring, sand lance and smelt spawning areas;**
g) **Wildlife habitat networks designated by the County, and**
h) **Riparian corridors.**

King County shall also protect the habitat for candidate species, as listed by the Washington Department of Fish and Wildlife, found in King County outside of the Urban Growth Area.

E- 169 King County should protect the following species of local importance, as listed by the Washington Department of Fish and Wildlife and listed by King County, on lands outside of the Urban Growth Area, where they are likely to be most successful. Protection should be accomplished through regulations, incentives or purchase.
Species of local importance are:

a) **mollusks - Geoduck clam and Pacific oyster;**
b) **crustaceans - Dungeness crab and Pandalid shrimp;**
c) **echinoderms- Red urchin;**
d) **fish - white sturgeon, Pacific herring, channel catfish, longfin smelt, surfsmelt, Pacific cod, Pacific whiting, black rockfish, copper rockfish, quillback rockfish, yelloweye rockfish, lingcod, Pacific sand lance, English sole, and rock sole;**
e) **birds - Trumpeter swan, Tundra swan, Snow goose, Band-tailed pigeon, Brant, Harlequin duck, Blue grouse, Mountain quail, and Western bluebird;**
f) **mammals - marten, mink, Columbian black-tailed deer, elk, and mountain goat.**

E- 170 King County should protect the following priority habitats listed by the Washington Department of Fish and Wildlife that are not otherwise protected by policies and codes. Protection should be accomplished through regulations, incentives or purchase. Priority habitats are: caves, cliffs, consolidated marine/estuarine shorelines, estuary, old growth/mature forest, unconsolidated marine/estuarine shorelines, snag-rich areas, and talus slopes.

E- 171 Development proposals should be assessed for the presence of species of local importance. A comprehensive assessment should follow a standard procedure or guidelines and shall occur one time during the development review process.

Existing buffer requirements for streams and wetlands are not intended to, and do not, always adequately protect wildlife resources in those sensitive areas. Areas with critical wildlife resources may need larger buffers to protect the resource.

E- 173 Stream and wetland buffer requirements may be increased to protect species of local importance, as listed in this chapter, and their habitats, as appropriate. Whenever possible, density transfers and/or buffer averaging should be allowed.

Salmon are particularly important because of their significance to local and regional character, federally recognized tribes and the fisheries industry. Several salmon stocks within King County and other areas of Puget Sound are in a serious state of decline. Several salmon stocks within King County have been or are about to be listed under the Endangered Species Act. The most effective way to protect and enhance native fish populations is through protection of those river and stream channels, riparian corridors, lakes, wetlands, headwaters and watersheds that provide or impact spawning and rearing habitat, food resources and fish passage. Intermittent streams also can be critical to native fish populations. Fish enhancement facilities currently are still critical to the maintenance of salmon stocks and the fisheries industry.

E- 174 King County should protect salmonid habitats by ensuring that land use and facility plans (transportation, water, sewer, electricity, gas) include riparian and stream habitat conservation measures developed by the County, cities, federally-recognized tribes, service providers, and/or state and federal agencies. Development within basins that contain fish enhancement facilities should consider significant adverse impacts to those facilities.

Protection of isolated blocks of habitat will not adequately protect wildlife in King County. Critical wildlife habitats and refuges need to be connected across the landscape through a system of habitat networks. Some areas may be important because they connect other areas together.

Network width is related to requirements of desired wildlife species, length of network segment and other desired uses within the network. Wider corridors will be required for larger species if the distance between refuges is great or if multiple uses, such as public access and trails, are desired. Since it may not be possible to protect wide corridors in the Urban Growth Area, it may not be possible to accommodate larger wildlife species in all areas. Networks will address some of the problems of habitat fragmentation for smaller species within the Urban Growth Area.

Potential linkages are identified on the Wildlife Network and Public Ownership Map. Open spaces set aside during subdivision of land should be located to make connections with larger off-site systems. This approach will also benefit other open space goals.

E- 175 Dedicated open spaces and designated sensitive areas help provide wildlife habitat. Habitat networks for Threatened, Endangered and Priority species of local importance, as listed in this chapter shall be designated and mapped. Habitat networks for other Priority Species in the Rural Area should be designated and mapped. Planning should be coordinated to ensure that connections are made with adjacent segments of the network. King County should provide incentives for new development within the networks to incorporate design techniques that protect and enhance wildlife habitat values.

King County shall also protect the habitat for candidate species, as listed by the Washington Department of Fish and Wildlife, found in King County outside of the Urban Growth Area.

The foregoing King County Comprehensive Plan stream and shoreline policies are implemented by the zoning code provisions paraphrased below and as outlined within the Wetland and Streams/Rivers Sections of this letter. King county zoning precludes development from occurring within wildlife corridors unless these minimum requirements area satisfied.

21A.14.260- Wildlife habitat corridors-applicability.

21A.14.270-Wildlife habitat corridors- Design standards.

(A) The wildlife corridor shall be meet the following conditions:

1. Forms on contiguous tract that enters and exits the property at the points the designated wildlife habitat network crosses the property boundary
2. Maintains a width, wherever possible of 300 feet. The network width shall not be less than 150 feet wide at any point.
3. Be contiguous with and may include sensitive area tracts and their buffers, and where feasible, the corridor shall connect isolated sensitive areas or habitat and connect with wildlife habitat corridors, open space tracts or wooded areas on adjacent properties.

The Washington Administrative Code (WAC) 197-11 includes the State Environmental Policy Act (SEPA) regulations. WAC 197-11-660 states that local government shall base mitigation measures on policies, plans, rules or regulations formally designated by the appropriate legislative body. King County's Comprehensive Plan is substantive authority under the SEPA rules. The policies to protect wildlife habitat are found in Section VI, A and B, of the Natural Environment chapter. To protect this habitat, King County must adequately condition development permits.

In order to implement Policy E-175, a draft set of Wildlife Study Guidelines was prepared in August 1993. Wildlife studies prepared by consultants and submitted with permit applications are expected to follow these Guidelines.

Under the King County Wildlife Study Guidelines, projects that are greater than 5 acres located within the rural area and having no special wildlife criteria present, at a minimum, will require a habitat survey. If areas contain special wildlife criteria, additional studies may be required. Special wildlife criteria in rural developments include the presence of threatened or endangered species, site location within a wildlife management area (WMA), or the presence of priority habitats and/or species.

Specific surveys may include a habitat survey, wildlife survey, and threatened or endangered species report for the proposal, as described in the 1993 "Wildlife Study

Guidelines for SEPA", Draft by King County Resource Planning. The proposed project must assess impacts on raptors and other King county Priority avian species including eagle and red-tailed hawks, great blue heron and pileated woodpecker. Include nesting and habitat impacts, as well as flightway disruptions and perch safety. Additionally, per the King County Code, site specific special study may be required to evaluate impacts on salmonids of local importance as specified in the Comprehensive plan, as well as bull trout and Chinook salmon (see Streams/Rivers).

2.1 Proposed projects consistency with King County's land use land use plans and zoning regulations for Fish and Wildlife

Based on the information obtained in the required studies and reports, additional fish and wildlife studies/evaluations and mitigation will be required to assure that significant impacts do not occur to priority King County Species or Habitats (also see wetlands and streams/Rivers) and that the project is consistent with King County land use and policy regulations.

As noted within Appendix B, Wildlife Technical Report, of the DEIS, wildlife species and their habitats occurring or potentially occurring within the project area were discussed at two levels. The first was a very general discussion of a broad project area. The second included a more specific discussion of species and habitats within 0.25 mile of the proposed transmission line ROWs. The information used to identify potentially occurring species or habitats within this study area relied on the WDFW priority habitats database, the HCP for the Cedar River Watershed, other literature, habitat types identified through aerial photography interpretation, and limited habitat field reconnaissance. Based on the proposed project description, the 0.25 mile evaluation corridor on either side of the proposed ROW does not appear to be a sufficient width to accurately evaluate potential impacts to wildlife species. For example, the blasting of bedrock to install tower footings has the potential to effect wildlife species within 1 mile of these activities. Nesting pairs of bald eagles (and wintering populations), spotted owls, northern goshawks, red-tailed hawks, great blue heron colonies, and other avian species could be impacted by the noise disturbance. To more accurately identify species, potential impacts, and associated mitigation measures, the remote habitat evaluations and databases and other literature should be used to identify where sensitive species (federally listed and King County Priority species) occur or are likely to occur within 1 mile of the ROW. Standard or modified survey protocols for sensitive species should be conducted in potentially effected habitats (habitats associated with sensitive species) or areas where significant noise disturbance would occur (blasting) to determine species presence. The location of surveys, size of the survey areas, and survey intensities should be determined/justified based off of the proposed project activity and associated habitats and species sensitivity to project disturbances. Habitat removal, noise disturbance, habitat fragmentation, and bird collision potential (description of flyway needed and nearby high bird concentration areas) with towers should all be considered in identifying species to be surveyed. In areas where species are determined to be present that could be significantly effected/adversely effected by project activities, mitigation measures should be developed

to avoid or reduce impacting these species (e.g. seasonal construction restrictions, ROW siting modification or/or facility siting modification, etc.). King County typically relies on management recommendations outlined in the Washington Department of Fish and Wildlife Management Recommendations for Washington's Priority Habitats and Species and other internal documents to identify mitigation for sensitive species.

Per King County land use plans and zoning regulations, wildlife corridor networks must maintain a width, wherever possible of 300 feet. The network width shall not be less than 150 feet wide at any point. Clearing of the two wildlife corridors would therefore not be consistent with King County land use plans and zoning regulations. The proposed project would need to demonstrate that the wildlife corridors would be maintained in their existing conditions. The project should evaluate the use of alternative ROW siting or transmission line spanning techniques to avoid impacting existing wildlife corridors. If it is found that the wildlife corridors cannot be maintained at their existing locations, an analysis should be performed to determine if alternative and appropriate habitat corridors could be established in the immediate vicinity. The corridors would need to meet the design standards in KCC 21A.14.270.

As stated within Appendix A, Final Fisheries Technical Report, of the DEIS, the impact assessment for the analysis relied upon remote methods to identify potential fish-bearing streams. As identified in Section 1.3 of this letter under Wetlands and Streams/Rivers, to be consistent with King County land use plans and zoning regulations, site specific stream analyses will need to be performed to accurately identify and classify all streams that occur within the identified ROW. For all steams that may be directly effected by ROW crossing, a Level 1 stream survey should be conducted. The survey must include two reaches equal to 20 times the average stream width both up and downstream of the crossing. For all Class 1 and 2 stream crossings that would require work within the OHWM (roads, culverts, other faculties), a Level II analysis may need to be completed. This would include 1) a list of all fish, including their life histories, that are know to inhabit the stream, 2) spanner counts for all anadromous salmonids that use the particular stream where the crossing occurs (WDF format), 3) redd surveys for all anadromous salmonids that use the streams, 4) electrofish the crossing sites during April and May to determine juvenile rearing use.

Mitigation including an alternative evaluation (see Wetlands and Streams/Rivers) would need to be identified for potentially impacted streams and rivers.

Shorelines

King County's Shoreline Management Master Program (Title 25 of the King County Code) is a functional plan developed in compliance with the Washington State Shoreline Management Act of 1971. The Master Program protects streams with a mean annual flow of 20 cubic feet or more per second, lakes that are 20 acres or more in size, the marine shoreline of Puget Sound and wetlands associated with these systems.

E- 124 Development within designated Shoreline Environments shall preserve the resources

and ecology of the water and shorelines, avoid natural hazards, promote visual and physical access to the water, protect ESA listed species and their critical habitat, and preserve archeological, traditional cultural resources, shellfish resources, and navigation rights. Protection of critical areas shall take priority over visual values and physical access.

- **Utility construction should be encouraged to locate where water quality will be maintained or improved.**
- **Utility corridors should be encouraged to consolidate or share rights of way.**
- **Public access should be encouraged.**
- **Utility routes should be designed to minimize visual impact from the water and upland areas.**
- **Utility facilities and rights of way should be selected to preserve the natural landscape and minimize conflicts with present and future land uses.**
- **Utility facilities and rights of way sho8uld be selected to preserve the natural landscape and minimize conflicts with present and future land uses.**
- **Utility facilities should be located to not require extensive shoreline protection nor to restrict water flow, circulation or navigation.**

The shoreline policies and Comprehensive Plan policies referenced above are both implemented through code provisions paraphrased below.

KCC 25.04.030 Scope. (A) and (C).

> (A) No development shall be undertaken by any person on the shorelines of the state unless such development is consistent with the provisions of this title and the goals, policies and objectives of the master program.
>
> (C) Development proposed on property adjacent to water bodies or wetlands under the jurisdiction of the Shoreline Management Act shall be evaluated in terms of the goals, policies and objectives of the master program. (Ord. 3688 § 103, 1978).

KCC 25.04.050 Relationship to other King County programs. A. When provisions of this chapter conflict with the sensitive areas code, K.C.C. Chapter 21A.54, that which provides more protection to the sensitive area shall apply.

KCC 25.20.110 Utilities. Utility facilities may be permitted in the rural environment subject to the utilities requirements (Section 25.16.160) of the urban environment and the general requirements (Section 25.20.030) of this chapter. (Ord. 3688 § 511, 1978).

25.20.030 General requirements. (A), (C), (D), (E), (F), and (G)

> (A) Nonwater related and residential development shall not be permitted waterward of the ordinary high water mark.

(C) All development shall be required to comply with K.C.C. chapter 9.04 to control runoff and to provide adequate surface water and erosion and sediment control during the construction period.

D. Development shall maintain the first fifty feet of property abutting a natural environment as required open space.

E. Parking facilities except parking facilities associated with detached single-family and agricultural development shall retain existing vegetation or be planted in conformance with the landscape standards enumerated in the general requirements (K.C.C. 25.16.030) of the urban environment.

F. Water quality treatment in compliance with K.C.C. chapter 9.04 shall be required where stormwater runoff would materially degrade or add to the pollution of recipient waters or adjacent properties.

G. The regulations of this chapter have been categorized in a number of sections; regardless of the categorization of the various regulations, all development must comply with all applicable regulations.

25.20.140 Excavation, dredging and filling. (A) Excavation, dredging and filling may be permitted in the rural environment subject to the provisions of K.C.C. 25.16.190.

25.24.030 General requirements (A), (C), (D), and (G).

(A). Nonwater related, water related and residential development shall not be permitted waterward of the ordinary high water mark.
(C) All development shall be required to comply with K.C.C. chapter 9.04 to control runoff and to provide adequate surface water and erosion and sediment control during the construction period.
(D). Development shall maintain the first fifty feet of property abutting a natural environment.
(G). The regulations of this chapter have been categorized in a number of sections; regardless of the categorization of the various regulations, all development must comply with all applicable regulations.

25.24.140 Excavation, dredging and filling.

A. Excavation below the OHWM is allowed in the conservancy environment only to mitigate public safety concerns and fisheries impacts.
C. Excavation or dredging of marshes, swamps or bogs shall not be permitted

25.16.160 Utilities. Utility facilities may be permitted in the urban environment subject provided that:

A. Utility and transmission facilities shall:

1. Avoid disturbance of unique and fragile areas;

2. Avoid disturbance of wildlife spawning, nesting and rearing areas;
3. Overhead utility facilities shall not be permitted in public parks, monuments, scenic recreation or historic areas.

B. Utility distribution and transmission facilities shall be designed so as to:
1. Minimize visual impact;
2. Harmonize with or enhance the surroundings;
3. Not create a need for shoreline protection;
4. Utilize to the greatest extent possible natural screening.

C. The construction and maintenance of utility facilities shall be done in such a way so as to:
1. Maximize the preservation of natural beauty and the conservation of resources;
2. Minimize scarring of the landscape;
3. Minimize siltation and erosion;
4. Protect trees, shrubs, grasses, natural features and topsoil from drainage;
5. Avoid disruption of critical aquatic and wildlife stages.

D. Rehabilitation of areas disturbed by the construction and/or maintenance of utility facilities shall:
1. Be accomplished as rapidly as possible to minimize soil erosion and to maintain plant and wildlife habitats;
2. Utilize plantings compatible with the native vegetation.

E. Solid waste transfer stations shall not be permitted within the shorelines of the state.

"Shorelines of the State" which appear to be associated with the preferred alternative include the Cedar River, Raging River, and other streams with flows of more than 20 cfs, and their associated wetlands. Since the proposed alternative appears to cross several shorelines of the state and constitutes a substantial development, a shoreline substantial development permit from King County would be required. Therefore, to be consistent with King County Comp Plan policies and zoning regulations, the BPA would need to submit information that demonstrates the project is consistent with the King County Shoreline Master Program as outlined above.